

Applying integral approach to standardization of the quality of bottom sediments from natural waters

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Abstract

© 2015, Pleiades Publishing, Ltd. An integral method of quality standardization of bottom sediments based on the results of chemical, bioindication, and toxicological studies of bottom sediments has been tested as applied to the Kuibyshev Reservoir. Two types of quality standards for use in the practice of water resources management have been evaluated, including target standards (ensuring the preservation of high biodiversity) and signal (indicating to a hazardous pollution level of bottom sediments). The obtained standards have been compared with similar standards for water bodies in other countries in terms of the concentrations of metals (Zn, Cu, Ni, Cr, Pb, Cd, and Hg) and oil products in bottom sediments of the Kuibyshev Reservoir.

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Keywords

bottom sediments, metals, oil products, quality standards